

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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**Applicant:** M. Cusson, et al. **Paper No.:**  
**Application No.:** 09/294,656 **Group Art Unit:** 3624  
**Filed:** 4/19/99 **Examiner:** Colbert

10 **Title:** *Web servers with queryable dynamic caches*

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15 Commissioner for Patents  
Alexandria, VA 22313-1450**Supplementary Response to a non-final Office action under 37 C.F.R. 1.111**20 Applicant received a Response to Applicant's Amendment mailed 8/21/06 in which the  
Examiner noted an unintentional error in the numbering of claims as submitted in the Response  
to a Non-Final Office action filed on 5/9/06 in the above application.25 Applicants' attorney has confirmed that claim 25 on page 6 of the Response filed on 8/21/06  
should be listed as claim 125. The necessary correction has been made on the attached copy of  
the claims.**Please amend the claims as follows:**

**Claims 1 – 111 (cancelled)**

1 **112. (currently amended)** Apparatus for responding to a request, the request including one or  
2 more specifiers referring to objects belonging to a plurality thereof in a distributed database  
3 system that includes a plurality of database systems and  
4 the apparatus comprising:

5 a first database system of the plurality of database systems;

6 a query analyser that determines whether the request includes a specifier that cannot be  
7 interpreted in the first database system; and

8 a redirector which responds to the request when the query analyzer so determines~~the~~  
9 ~~request includes a specifier that cannot be interpreted in the first database system~~ by causing the  
10 request to be executed at least in part in a second database system of the plurality of database  
11 systems,

12 ~~the request otherwise being executed in the first database system~~ when the query analyzer does  
13 not so determine.

1 **113. (previously presented)** The apparatus in accordance with claim 112 wherein:

2 the objects in the first database system include copies of objects contained in at  
3 least one other database system belonging to the distributed database system.

1 **114. (previously presented)** The apparatus in accordance with claim 113 wherein:

2 the first database system functions as a cache with regard to the objects whose copies are  
3 included in the first database system.

1 **115. (previously presented)** The apparatus in accordance with claim 113 wherein:

2 the other database system is the second database system.

1    **116. (previously presented)** The apparatus in accordance with claim 115 wherein:

2           the first database system functions as a cache with regard to the second database system.

1    **117. (previously presented)** The apparatus in accordance with any one of claims 112 through  
2    116 wherein:

3           the apparatus is local to a server of the type that provides a program executing on the  
4    server with a standard interface for querying databases; and

5           the requests include queries received via the standard interface.

1    **118. (previously presented)** The apparatus in accordance with claim 117 wherein:

2           the server obeys the hypertext transfer protocol (http) and the program is a Web  
3    application program.

1    **119. (previously presented)** A method of responding to a request, the request including one or  
2    more specifiers that refer to one or more objects in a distributed database system that includes a  
3    plurality of database systems and

4    the method comprising the steps of:

5           receiving the request in a first database system of the plurality of database systems;

6           determining whether the request includes a specifier that cannot be interpreted in the  
7    first database system; and

8           when the request includes such a specifier, causing the request to be executed at least in  
9    part in a second database system of the plurality of database systems.

1    **120. (previously presented)** The method in accordance with claim 119 wherein:  
2           the objects in the first database system include copies of objects contained in at least one  
3    other database system belonging to the distributed database system,  
4    whereby the first database system functions as a cache with regard to the objects whose copies  
5    are included in the first database system.

1    **121. (previously presented)** The method in accordance with claim 120 wherein:  
2           the other database system is the second database system,  
3    whereby the first database system functions as a cache with regard to the second database  
4    system.

1    **122. (previously presented)** The method in accordance with any one of claims 119 through 121  
2    wherein:  
3           the first database system is local to a server of the type that provides a program executing  
4    on the server with a standard interface for querying databases; and  
5           in the step of receiving the request, the request is received via the standard interface.

1    **123. (previously presented)** The method in accordance with claim 122 wherein:  
2           the server obeys the hypertext transfer protocol (http) and the program is a Web  
3    application program.

1    **124. (previously presented)** A memory device characterized in that:

the memory device contains code which, when executed in a processor, performs a method of responding to a request, the request including one or more specifiers that refer to one or more objects in a distributed database system that includes a plurality of database systems and the method comprising the steps of:

receiving the request in a first database system of the plurality of database systems;

determining whether the request includes a specifier that cannot be interpreted in the first database system; and

when the request includes such a specifier, causing the request to be executed at least in part in a second database system of the plurality of database systems.

**125. (currently amended)** Apparatus for caching copies of objects belonging to a subset of the objects belonging to a first database system that returns an object in response to a request therefor, the request including one or more specifiers referring to the objects and

the apparatus comprising:

a second database system that contains the copies;

a query analyser that determines whether the request includes a specifier that cannot be interpreted in the second database system; and

a redirector that responds to the request when the ~~request includes a specifier that cannot be interpreted in the second database system~~ query analyzer so determines by causing the request to be executed at least in part in the first database system, the request ~~otherwise~~ being executed in the second database system when the query analyzer does not so determine.

1    **126. (previously presented)** The apparatus in accordance with claim 125 wherein:  
2           the apparatus is local to a server of the type that provides a program executing on the  
3    server with a standard interface for querying databases; and  
4           the requests include queries received via the standard interface.

1    **127. (previously presented)** The apparatus in accordance with claim 126 wherein:  
2           the server obeys the hypertext transfer protocol (http) and the program is a Web  
3    application program.

1    **128. (previously presented)** A method of responding to a request that includes one or more  
2           specifiers referring to one or more objects belonging to a set of objects where the objects  
3           are stored in a first database system and copies of a subset of the set of objects are stored  
4           in a second database system,  
5    the method comprising the steps of:  
6           receiving the request in the second database system;  
7           determining whether the request includes a specifier that cannot be interpreted in the  
8           second database system; and  
9           when the request includes such a specifier, causing the request to be executed at least in  
10          part in the first database system instead of in the second database system.

1    **129. (previously presented)** The method in accordance with claim 128 wherein:

2           the second database system is local to a server of the type that provides a program  
3           executing on the server with a standard interface for querying databases; and  
4           in the step of receiving the request, the request is received via the standard interface.

1    **130. (previously presented)** The method in accordance with claim 129 wherein:

2           the server obeys the hypertext transfer protocol (http) and the program is a Web  
3           application program.

1    **131. (previously presented)** A memory device characterized in that:

2           the memory device contains code which, when executed in a processor, performs  
3           a method of responding to a request that includes one or more specifiers referring to  
4           objects belonging to a set of objects where the objects are stored in a first database system  
5           and copies of a subset of the set of objects are stored in a second database system,

6           the method comprising the steps of:

7           receiving the request in the second database system;

8           determining whether the request includes a specifier that cannot be interpreted in  
9           the second database system; and

10          when the request includes such a specifier, causing the request to be executed at  
11          least in part in the first database system instead of in the second database system.

**Conclusion**

Applicants has replace 25 with 125 in the numbering of the claims in the Response to a Non-Final Action as filed on 5/9/06.

- 5 Applicants have thus been fully responsive to Examiner's Office action of 2/6/02, as required by 37 C.F.R. 1.111(b) and respectfully request that Examiner continue with her examination and allow the claims as amended, as provided in 37 C.F.R. 1.111(a). No fees are believed to be required by way of this amendment. Should any be, please charge them to deposit account number 501315.

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Respectfully submitted,

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